

reaction involving the transfer of the acetyl group  $\text{CH}_3\text{—C}(=\text{O})\text{—}$ . It occurs in many metabolic reactions.

**transacylase** (trans-as'i-lās) an enzyme that catalyzes transacylation.

**transacylation** (trans-as'i-la'shun) a chemical reaction involving the transfer of the acyl radical between acetic and higher carboxylic acids.

**transaldolase** (trans-al'do-lās) an enzyme (a transferase) that catalyzes the transfer of an aldehyde residue from sedoheptulose to form tetrose.

**transamidinase** (trans-am'i-din-ās) an enzyme (a transferase) that catalyzes the transfer of amidine, as from arginine to ornithine; called also *amidinotransferase*.

**transaminase** (trans-am'i-nās) an enzyme that catalyzes the reversible transfer of an amino group from an  $\alpha$ -amino acid to an  $\alpha$ -keto acid, usually  $\alpha$ -ketoglutaric acid. Pyridoxal-5-phosphate and pyridoxamine phosphate act as coenzymes. **glutamic-oxaloacetic t. (GOT)**, an enzyme normally present in serum (SGOT) and in various body tissues, especially in the heart and liver; it is released into the serum as the result of tissue injury, hence the concentration in the serum may be increased in myocardial infarction or acute damage to hepatic cells. **glutamic-pyruvic t. (GPT)**, an enzyme normally present in serum (SGPT) and body tissues, especially in the liver; it is released into the serum as a result of tissue injury, hence the concentration in the serum may be increased in patients with acute damage to hepatic cells.

**transamination** (trans'am-i-na'shun) the reversible transfer of an amino group from an amino acid to what was originally an  $\alpha$ -keto acid, forming a new keto acid and a new amino acid, without the appearance of ammonia in the free state.

**transanimitation** (trans-an'i-ma'shun) [*trans* + L. *anima* breath] resuscitation by mouth-to-mouth breathing; see *mouth-to-mouth method of artificial respiration*, under *respiration*.

**transaortic** (trans'a-or'tik) performed through the aorta; used especially in reference to surgical procedures on the aortic valve, performed through an incision in the wall of the aorta.

**transatrial** (trans-a'tre-al) performed through the atrium; used especially in reference to surgical procedures on a cardiac valve, performed through an incision in the wall of the atrium.

**transaudient** (trans-aw'de-ent) permitting passage of the mechanical vibrations perceived as sound.

**transcalent** (trans-ka'lent) [*trans* + L. *calere* to be hot] permitting the passage of radiant heat.

**transcarbamoylase** (trans-kar'bah-moi'lās) carbamoyltransferase.

**transcarboxylase** (trans'kar-bok'sī-lās) carboxyltransferase.

**transcervical** (trans-ser'vī-kal) performed through the cervical opening of the uterus.

**transcondyloid** (trans-kon'dī-loid) through the condyles.

**transcortical** (trans-kor'ti-kal) connecting two different parts of the cerebral cortex; also, dependent on disease of the tracts connecting different parts of the cerebral cortex.

**transcortin** (trans-kor'tin) an  $\alpha$ -globulin that binds and transports biologically active, unconjugated cortisol in plasma; called also *corticosteroid-binding globulin (CBG)*.

**transcription** (trans-krip'shun) the process by which genetic information contained in DNA produced a complementary sequence of bases in an RNA chain.

**transducer** (trans-du'ser) a device that translates one form of energy to another, e.g., the pressure, temperature, or pulse to an electrical signal.

**transduction** (trans-duk'shun) [*L. transducere* to lead across] a method of genetic recombination in bacteria, in which DNA from a lysed bacterium is transferred to another bacterium by bacteriophage, thereby

changing the genetic constitution of the second organism.

**transection** (tran-sek'shun) [*trans* + L. *sectio* a cut] a section made across a long axis; a cross section; division by cutting transversely.

**transepidermal** (trans'ep-i-der'mal) occurring through or across the epidermis.

**transfaunation** (trans'faw-na'shun) the transfer of animal parasites from one host organism to another.

**transfection** (trans-fek'shun) infection by naked viral nucleic acid.

**transfer** (trans'fer) [*trans* + L. *ferre* to carry] the conveyance of something from one place to another. **group t.**, a chemical reaction involving the enzyme-induced transfer of a group (e.g., a phosphate group) to a substrate. **linear energy t.**, see *LET*. **passive t.**, the conference of immunity to a nonimmune host by injection of antibody or lymphocytes from an immune or sensitized donor.

**transferase** (trans'fer-ās) any of a class of enzymes that catalyze the transfer, from one molecule to another, of a chemical group that does not exist in the free state during the transfer. **CoA-t.**, an enzyme that catalyzes the transfer of a CoA group, as from an acetyl group to propionate, oxalate, or malonate.

**transference** (trans-fer'ens) 1. the passage or conveyance of a symptom or affection from one part to another, a kind of metastasis. 2. in psychiatry, the shifting of an affect from one person to another or from one idea to another, especially the transfer by the patient to the analyst of emotional tones, either of affection or of hostility, based on unconscious identification. If the transfer is favorable it is *positive t.*, if unfavorable *negative t.* **counter t.**, see *countertransference*.

**transferrin** (trans-fer'rīn) [*trans* + L. *ferrum* iron + *-in* chemical suffix] serum  $\beta$ -globulin that binds and transports iron. Several types (e.g., C, B, D, and many others) have been distinguished on the basis of electrophoretic mobility and related as the products of corresponding dominant somatic genes, Tf<sup>C</sup>, Tf<sup>B</sup>, and Tf<sup>D</sup>. Called also *siderophilin*.

**transfix** (trans'fiks) [*trans* + L. *figere* to fix] to pierce through and through.

**transfixion** (trans-fik'shun) a cutting through from within outward, as in amputation.

**transformation** (trans'fo-ra'shun) [*trans* + L. *forare* to pierce] the perforation or piercing of the fetal skull.

**transforator** (trans'fo-ra'tor) an instrument for making a transformation.

**transformation** (trans'for-ma'shun) [*trans* + L. *formatio* formation] change of form or structure; conversion from one form to another. In oncology, the change that a normal cell undergoes as it becomes malignant. **asbestos t.**, the deposition of extraneous fibers in hyaline cartilage, which gives it a silky glossy appearance. **bacterial t.**, the process of intercellular transfer of genetic information in which a small portion of the total DNA of a lysed bacterium enters a related bacterium and is incorporated into its genetic constitution. **G-F t.**, **globular-fibrous t.**, the reversible change of actin globules into long filaments, in the process of muscle contraction and relaxation. **lymphocyte t.**, the morphological change (increase in size, abundance of cytoplasm, visibility of nucleoli) in lymphocytes cultured in the presence of an antigen to which they were previously exposed, or in the presence of nonspecific stimulants such as plant mitogens, streptolysins, and anti-lymphocyte serum.

**transformiminase** (trans'for-mim'i-nās) an enzyme that catalyzes the transfer of a formimino group, as from glutamate or glycine to tetrahydrofolate.

**transfructosylase** (trans-fruk'to-sil'ās) fructosyltransferase.

**transfusion** (trans-fu'zhun) [*L. transfusio*] the introduction of whole blood or blood component directly into the blood stream. Cf. *infusion*. **direct t.**, immediate **t. exchange t.**, repetitive withdrawal of small amounts of blood and replacement with donor blood, until a large proportion of the blood volume has been exchanged; used in newborn infants with erythroblastosis.